



# Measuring the Use of Women-Owned Small Businesses in Federal Contracting

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In 2000, the Small Business Reauthorization Act authorized contracting officers to restrict competition for federal contracts on a discretionary basis in certain industries to women-owned small businesses. These industries are those determined by the Small Business Administration (SBA) to have underrepresentation by women-owned small businesses in government contracting, that is, a share of contracts that is small relative to the prevalence of such firms among those “ready, willing, and able” to participate in such contracts.

To determine the extent of underrepresentation of women-owned small businesses by industry, the SBA asked the RAND Corporation to compute disparity ratios by both contract dollars and the number of contracts. A disparity ratio indicates how many contracts (or dollars) a particular type of small business is awarded in proportion to its presence in an industry. A disparity ratio of 1.0 or above suggests firms of a particular type are awarded contracts (or receive procurement dollars) in equal or greater proportion to their representation in the industry, while a ratio below 1.0 indicates underrepresentation in federal contracting.

RAND researchers calculated contract and dollar disparity ratios for women-owned small businesses as a proportion of all businesses and as a proportion of businesses that have registered as potential bidders for federal contracts. Disparity ratios of less than 0.8 were considered to indicate significant underrepresentation in an industry.

## Data and Findings

To identify contracts held by women-owned small businesses, the researchers used Federal Procurement Data System (FPDS) data on contracts of at least \$25,000 (the threshold used for reporting) in fiscal years (FYs) 2002 and 2003 and of at least \$2,500 (the threshold used for

## Abstract

Disparity ratios provide a means of assessing whether a particular type of business receives federal contracts in proportion to its prevalence among all businesses in a given industry. The Small Business Administration asked RAND to assess disparity ratios for women-owned small businesses by industry. RAND found that disparity ratios vary greatly, depending on how they are defined (number of contracts or dollars awarded) and how a comparison group is constructed. Which ratio is appropriate depends on the policy goal considered.

reporting) in FY 2005. These data are the best available on federal contracts and are used to determine whether federal procurement has met the goals set by Congress. Unfortunately, they are limited to prime contracts and do not include very small contracts or government purchase-card data.

The researchers calculated disparity ratios for two populations of businesses. First, using data from the Central Contractor Registry (CCR), they examined firms that have registered with the federal government in anticipation of bidding on federal contracts, i.e., firms that are at least willing to bid on federal contracts. The CCR includes more-detailed industry data and is updated continuously but does not include firms that choose not to apply for government contracts.

Second, using data from the Survey of Business Owners (SBO), they considered all employer firms. These data presumably include employer firms that believe the government discriminates against them and hence would not register in the CCR, although just how willing such firms are to undertake government work is unknown. The SBO identifies industries only at limited, broad

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levels (18 2-digit industry-codes, whereas 23 are available in the CCR) and is updated only once every five years. More important, it does not publish data on women-owned *small* businesses, only on women-owned businesses. This biases disparity ratios downward (i.e., in favor of finding underrepresentation).

The researchers found that disparity ratios for women-owned small businesses depended on the availability and utilization measures used (see the table). For example, for 2-digit industry codes, using number of contracts and contract dollars as utilization measures among the population of SBO employer firms, they found significant underrepresentation (i.e., a disparity ratio of below 0.8) in 10 of 18 (56 percent) industries. For the population of CCR firms, using the number of contracts as a utilization measure results in a finding of significant underrepresentation in 19 of 23 (83 percent) industries, but when contract dollars are used as the utilization measure, there appears to be no significant underrepresentation of women-owned small businesses in any industry.

Data for 3- and 4-digit industry codes, used only in the CCR database of firms available for federal contracts, show similarly wide disparities in underrepresentation. If number of contracts is the utilization measure, then there appears to be significant underrepresentation in 46 of 66 (70 percent) 3-digit industry codes and 108 of 140 (77 percent) 4-digit industry codes. If contract dollars is the utilization measure, then only 1 of 66 (2 percent) 3-digit industry codes and 4 of 140 (3 percent) 4-digit industry codes appear to have significant underrepresentation of women-owned small businesses.

The researchers experimented with defining small firms by using Dun & Bradstreet DUNS data and by trimming very large and very small contracts from the FPDS data, but neither had a significant impact on the results.

## Conclusions

Disparity ratios are important for several elements of small-business policy. The SBA may use them in deciding to restrict contract competitions in certain industries. In addition, although disparity ratios are not, by themselves,

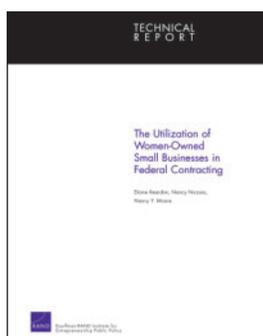
## Industries Showing Underrepresentation, by Various Measures of Disparity

Availability Measure	Utilization Measure	Total Number of Industries	% with Underrepresentation
2-Digit Industry Codes			
SBO employer firms	Number of contracts	18	56
SBO employer firms	Contract dollars	18	56
CCR registrants	Number of contracts	23	83
CCR registrants	Contract dollars	23	0
3-Digit Industry Codes			
CCR registrants	Number of contracts	66	70
CCR registrants	Contract dollars	66	2
4-Digit Industry Codes			
CCR registrants	Number of contracts	140	77
CCR registrants	Contract dollars	140	3

measures of discrimination, they have been used in many court cases to infer discrimination.

This study illustrates that disparity measures can be defined and calculated in many valid ways and that the method used has important implications for whether women-owned small businesses are deemed to be underrepresented in a given industry. Particularly important to the disparity ratio are the definition of the population of ready, willing, and able contractors and whether utilization is measured in contracts or dollars.

RAND researchers do not advocate a particular measure of disparity. They conclude that the most appropriate ratio to use will depend on the policy goals being pursued. ■



This research brief describes work done for the RAND Labor and Population program and the Kauffman-RAND Institute for Entrepreneurship Public Policy, which is housed within the RAND Institute for Civil Justice, documented in *The Utilization of Women-Owned Small Businesses in Federal Contracting*, by Elaine Reardon, Nancy Nicosia, and Nancy Y. Moore, TR-442-SBA (available at [http://www.rand.org/pubs/technical\\_reports/TR442](http://www.rand.org/pubs/technical_reports/TR442)), 2007, 62 pp., \$23.00, ISBN: 978-0-8330-4166-1. The RAND Corporation is a nonprofit research organization providing objective analysis and effective solutions that address the challenges facing the public and private sectors around the world. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. RAND® is a registered trademark.

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